CLAIMS:

1.   A method for encoding frames of input video, comprising the steps of:

   processing said input video to produce a compressed base layer bitstream;

   processing said input video to produce a compressed enhancement layer bitstream;

   identifying a region of interest in a video frame; and

   enhancing the quality of the region of interest by providing additional bits for coding said region.

2.   The method as defined by claim 1, wherein said step of providing additional bits for coding said region comprises providing additional bits for said region in the compressed base layer bitstream.

3.   The method as defined by claim 1, wherein said step of providing additional bits for coding said region comprises providing additional bits for said region in the compressed enhancement layer bitstream.

4.   The method as defined by claim 2, wherein said processing to produce a compressed base layer bitstream includes a quantization step, and wherein said step of providing additional bits for said region includes decreasing the quantization step in said region.

5.   The method as defined by claim 3, wherein said processing to produce a compressed enhancement layer bitstream includes a bit plane shifting step, and wherein said step of providing additional bits for said region includes increasing the bit shifting values in said region.

6.   The method as defined by claim 1, wherein said step of processing said input video to produce a compressed base layer bitstream includes forming motion vectors, and wherein said step of identifying a region of interest in a video frame includes basing said identifying on said motion vectors.

7.   The method as defined by claim 3, wherein said step of processing said input video to produce a compressed base layer bitstream includes forming motion vectors, and wherein said step of identifying a region of interest in a video frame includes basing said identifying on said motion vectors.

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8. The method as defined by claim 4, wherein said step of processing said input video to produce a compressed base layer bitstream includes forming motion vectors, and wherein said step of identifying a region of interest in a video frame includes basing said identifying on said motion vectors.

9. The method as defined by claim 6, wherein said step of identifying a region of interest in a video frame based on said motion vectors includes basing said identification on the magnitude of motion vectors.

10. The method as defined by claim 6, wherein said step of identifying a region of interest in a video frame based on said motion vectors includes basing said identification on the intensity change of neighboring regions based on motion vectors.

11. The method as defined by claim 3, wherein said step of processing said input video to produce a compressed base layer bitstream includes forming motion vectors and determining motion compensation values, and wherein said step of identifying a region of interest in a video frame includes basing said identifying on said motion vectors and said motion compensation values.

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12. The method as defined by claim 4, wherein said step of processing said input video to produce a compressed base layer bitstream includes forming motion vectors and determining motion compensation values, and wherein said step of identifying a region of interest in a video frame includes basing said identifying on said motion vectors and said motion compensation values.